

Name _____ Period _____

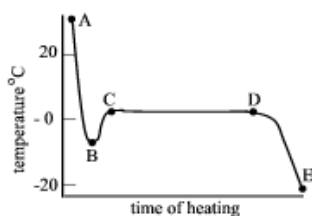
Skill 37.02 Problem 1

The melting point of an unknown substance is -20°C and the boiling point is 76°C . Sketch the heating curve for this substance. On the curve,

- (a) label the “x” and “y” axis
- (b) indicate the melting point
- (c) indicate the boiling point

Skill 37.03 Problem 1

The cooling curve for a pure substance is shown below.

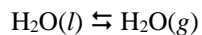


- (a) What is the freezing point of the substance, how do you know?
- (b) During which interval is the liquid phase in equilibrium with the solid phase?
- (c) During which interval do the liquid and solid phases coexist?

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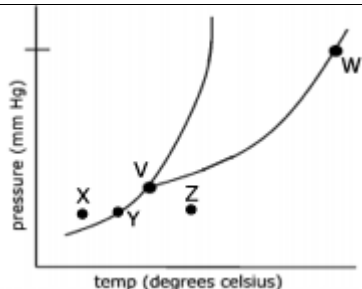
Skill 37.04 Problem 1

Predict the changes on the following liquid-vapor equilibrium,



- (a) an increase in temperature
- (b) an increase in pressure
- (c) an increase in volume

Skill 37.05 Problem 1



The phase diagram for a pure substance is shown above. Use this diagram and your knowledge about changes of phase to answer the following questions.

- (A) What does point V represent? What characteristics are specific to the system only at point V?
- (B) What does each point on the curve between V and W represent?
- (C) Describe the changes that the system undergoes as the temperature slowly increases from X to Y to Z.
- (D) In a solid-liquid mixture of this substance, will the solid float or sink? Explain.

Chemistry
Ticket Out the Door
Set 37: Phase Changes

Name _____ Period _____